

Configuration and Administration Guide for the

AV Bridge MATRIX PRO

Multimedia Room Solution

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Overview

This guide provides information about the AV Bridge MATRIX PRO multimedia room solution:

- 999-8230-000 – North America
- 999-8230-001 – Europe and UK
- 999-8230-009 – Australia and New Zealand

About this Guide

This guide covers:

- The product's physical features
- Overview of the web interface
- System administration tasks
- Configuration tasks
- Operation
- Troubleshooting

It does not include installation or connection instructions; these are available in the **Installation Guide for the AV Bridge MATRIX PRO Multimedia Room Solution**.

For complete product information, see the **Integrator's Complete Guide to the AV Bridge MATRIX PRO Multimedia Room Solution**. It includes unpacking and installation as well as sections on the operator's interface and product specifications.

Features

Inputs and Outputs:

- Quick-Connect inputs for three Vaddio cameras
- Video input for computer or other video source
- HDMI and proprietary Quick-Connect video outputs
- Four EasyMic microphone inputs
- Four additional balanced mic/line inputs with 48 V phantom power
- Four balanced audio outputs
- Simultaneous USB and IP streaming
- External RS-232 control input

Cameras and Video:

- Automatically identifies and configures for Vaddio cameras
- Access to settings stored on each connected camera
- Independently configurable output resolutions
- Configurable picture-in-picture (PIP) for conferencing
- Split screen – top/bottom or quad split showing all four video inputs simultaneously
- Seamless video transitions with software adjustable transition time - cross-fades and straight cuts

Audio:

- Automatic audio mixing with controls to manage audio levels manually if desired
- Acoustic echo cancellation with selectable AEC reference
- Assignable chairman priority gives one microphone a 3dB boost over the others
- Crosspoint gain configurable separately for each point in the audio matrix

Control

- Browser-based web interface for operation, configuration and system administration
- Triggers for programmed actions such as changing the video source, moving a camera to one of its presets, and most other operations:
 - Up to 10 external hardware trigger inputs
 - Up to 50 software triggers
 - Up to four EasyMIC MicPOD One Touch triggers

Product Compatibility

The AV Bridge MATRIX PRO is compatible with the following products.

Vaddio Cameras

May require an update to the camera's firmware.

Product	RS-232	IP
RoboSHOT Series (may use Quick-Connect or OneLINK device)	Yes	Yes*
ConferenceSHOT Series**	Yes	Yes
ClearVIEW HD 20SE	Yes	No
PowerVIEW HD 22/30	Yes	No
ZoomSHOT 20	Yes	No
WideSHOT	Yes	No
DocCAM 20 HDBT with OneLINK device	Yes	Yes

* IP control always uses the camera's IP address, not the address of its extension device (if one is used).

** Includes cameras marked ClearSHOT 10 USB.

Non-Vaddio Cameras

Product	RS-232	IP
Sony BRC Z330, Z700, H700, H900	Yes	No
Sony EVI-H100S	Yes	No
Sony SRG 120, SRG 300	Yes	No
Panasonic AW-HE 40, AW-HE 130	Yes	No

Control Devices

USB joysticks

Audio

- EasyMIC series tabletop and ceiling microphones
- EasyUSB mixers and I/O devices
- Audio-Technica AT U891R boundary microphone

Trigger Devices

- PresenterPOD devices
- StepVIEW mats

A Quick Look at the Multimedia Room Solution



- 8-line illuminated display – View basic operation and configuration menu and system information
- Menu knob – Navigate the operation/configuration menu
- Select and Cancel buttons – Work with the operation/configuration menu
- Video Mute button – Stop sending video. Press the button again to resume sending video from the selected source. When video is muted, the AV Bridge MATRIX PRO sends a black screen or color bar pattern instead.
- Audio Mute button – Stop sending audio. Press the button again to resume sending audio.
- Dimensionally enhanced puffy badge – We have spared no expense to provide a lovely, dimensionally enhanced, puffy badge to enhance your visual experience. It's quite shiny. We hope you'll enjoy it.

Web Interface

The multimedia room solution provides a web interface to allow configuration via the IP network connection, using a browser. The web interface allows you to:

- Set idle session behavior and passwords
- Manage network and streaming settings
- Add identifying information to the web interface
- Back up, reboot, reset, or update the device
- View information about the device's firmware and current settings
- Operate the device

When connected to a LAN that has a DHCP server, the multimedia room solution will get its IP address, gateway and routing information automatically and you will be able to browse to it. In the absence of a DHCP server, the switcher's default IP address is 169.254.1.1 and its subnet mask is 255.255.0.0.

You can configure a static IP address either through the network or from a computer connected directly to the Ethernet port.

To see the current IP address, dial to the Network menu on the front panel and press the Select button. Browse to this address to access the web interface.

Compatible Web Browsers

Supported web browsers:

- Chrome®
- Firefox®
- Microsoft® Internet Explorer®
- Safari®

Other browsers may also work.

We recommend Chrome or Firefox.

User Access

You can access the web interface using the device's IP address. If your network supports hostname resolution, you can use the hostname instead.

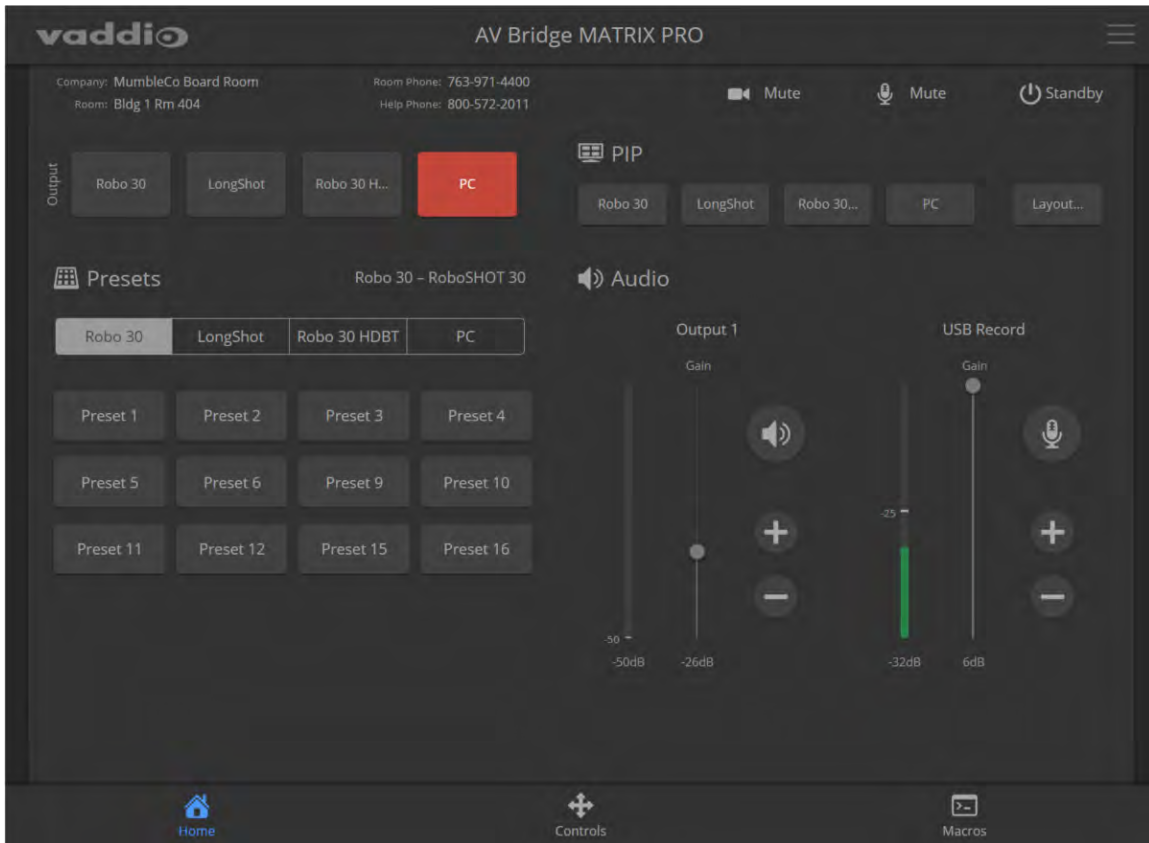
Note

Only the operator's pages are available with user or guest access.

1. The IP address is available on the front panel display. If it is not currently visible, dial to the Network menu on the front panel and press Select.
2. Enter the IP address or hostname in your browser's address bar. If you use the hostname, you may need to enter `http://` as a prefix to keep the browser from treating it as a search query.

If the system is configured for guest access, you will not need to log in.

If a login is required, the username is `user`. Contact the system administrator if you do not know the current password.



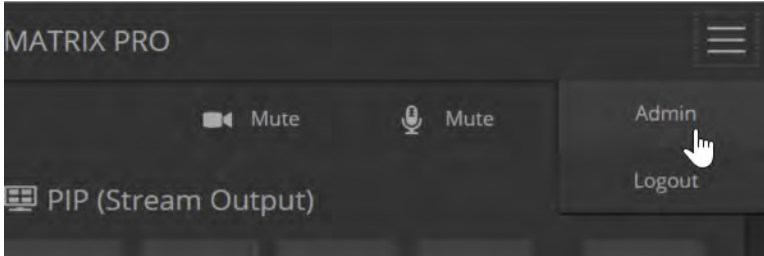
Admin Access

If no administrative controls (such as networking, security, or system pages) are available, you're logged in at the user level, or guest access is enabled and you're not logged in at all. The menu access button provides access to the admin login button.

For administrative access, log in as **admin**. The default password is **password**. The admin has access to all pages of the web interface.

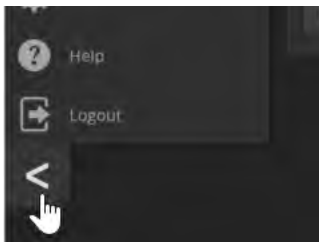
Note

For best security, Vaddio strongly recommends changing the default password(s). Using default passwords leaves the product vulnerable to tampering. See [Managing Access and Passwords](#).



The admin account has access to:

- **Video Switching page** – Select the video sources for stream and program outputs; control the current program source.
- **Video Inputs pages** – Control cameras and other video sources
- **Video Outputs pages** – Specify the video mute pattern, transition effects, PIP source and layout for stream output, and picture mode for program output
- **Audio pages**– Configure audio inputs and outputs; specify the output to use as the reference for acoustic echo cancellation (AEC)
- **Control Devices pages** – Create macros and associate them with triggers
- **Streaming page**– Configure USB and IP streaming
- **User Interface page** – Configure standby behavior, enable/disable front panel controls, and lock video output switching
- **Room Labels page** – Information to display on the web interface screens, including the conference room name and phone number and the in-house number for AV assistance.
- **Networking page**– Configure date and time settings, hostname, and IP addressing
- **Security page**– Set passwords, manage guest access, and enable/disable Telnet access
- **Diagnostics page**– View or download logs when troubleshooting issues.
- **System pages**– Reboot, restore factory defaults, run firmware updates, and view firmware version; push firmware updates to connected EasyMIC microphones
- **Help page**– Tech support contact information and a link to the product information library on the Vaddio website.
- **Logout button**– A graceful way to leave the web interface in a password-protected state.



Compact Menu View

By default, the navigation buttons display an icon and a text label. The web interface provides a compact view of the menu buttons along with the default view. The button at the bottom of the menu toggles between the two views.

Web Interface Cheat Sheets

Where to find the controls you need right now.

With admin access:

What do you need?	Go to this page
Audio mute/unmute	Available from any page
Video mute/unmute	Available from any page
All audio functions	Audio
Audio channels available from the operator's interface	User Interface
Camera controls	Video Switching or Video Inputs
Video input settings – color space, video mute pattern, source pairing	Video Inputs
Video output resolution, color space, video mute pattern	Video Outputs
Video transition effect and speed, PIP	Video Outputs
Video transition style and speed (global)	Video Switching
Video mute pattern	Video Outputs
IP streaming and USB streaming settings	Streaming
Program and stream sources, PIP source and layout	Video Switching
How downstream cameras behave on standby	User Interface
Passwords for admin and user accounts; guest access; Telnet access	Security
Enable/disable session timeout	Security
Hostname and network settings	Networking
Time and date settings	Networking
Macros and triggers	Control Devices
Reboot or factory reset	System
Backup and restore operations	System
Firmware update and current version	System
Helpdesk phone number for end users	Room Labels
Contact information for Vaddio helpdesk	Help
Diagnostic log	Diagnostics
Information about the device's location	Room Labels
Standby	Available from any page
Logout	Available from any page

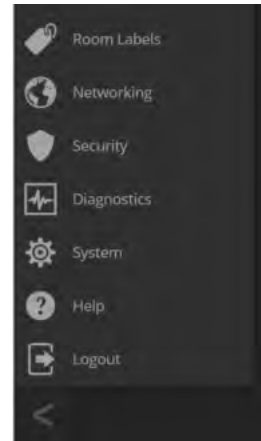
With guest or user access:

What do you need?	Go to this page
Audio mute/unmute	Available from any page
Video mute/unmute	Available from any page
Information about the device's location	Available from any page, if defined
Volume – Audio master output and USB Record	Home
Camera pan, tilt, zoom, and focus controls (availability depends on the camera's capabilities)	Controls
Camera presets	Home
Program and stream sources	Available from any page
PIP source and layout	Available from any page
Macros	Macros
Standby	Available from any page
Logout	Available from any page

System Administration Tasks

System administration for the AV Bridge MATRIX PRO multimedia room solution include:

- Adding information about the equipment's location and relevant phone numbers on the Room Labels page
- Enabling NTP updating to maintain the system time and date and specify the time zone on the Networking page
- Configuring hostname and network settings on the Networking page
- Setting passwords and enabling or disabling idle session timeout on the Security page
- Viewing and downloading diagnostic logs on the Diagnostics page
- Rebooting or starting a factory reset from the System page
- Starting a firmware update from the System page
- Locating the information to contact Technical Support on the Help page



Note

Typically, you do not need to configure the device to work with connected Vaddio products; this is done automatically.

Configuring the Device for Your Network

NETWORKING PAGE

Note

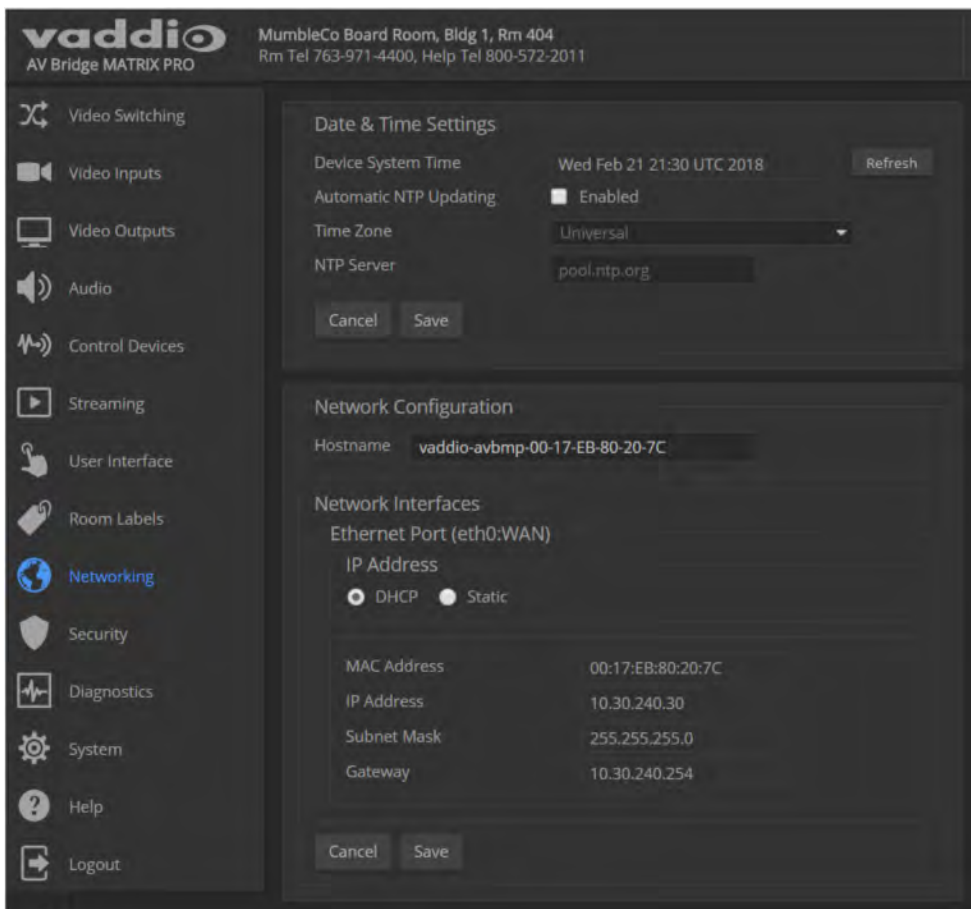
DHCP is the default setting, but the device will use the default address of 169.254.1.1 if no DHCP server is available.

You will be able to enter the IP address, subnet mask, and gateway only if you set IP Address to Static.

Note

If you don't completely understand all the implications of the steps below, please contact your IT staff or Vaddio Technical Support for assistance. Changes in network configuration can result in loss of network contact with the device.

1. Edit the device hostname if necessary. The hostname serves as the device URL. If the network supports hostname resolution, you can use the hostname instead of the device's IP address when you open a web interface session. The hostname is also used as the filename for exported configuration data, so it can help you identify the source of an exported data file.
2. If the device needs to use static IP addressing, select Static.
3. For static IP addressing, enter the appropriate IP address, subnet mask, and gateway address.

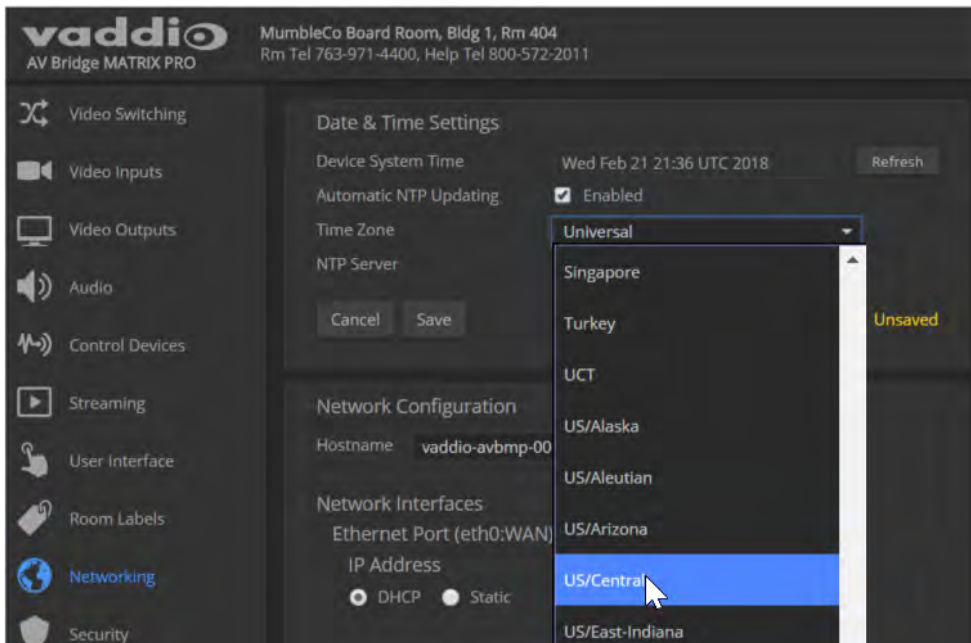


Setting System Time and Time Zone

NETWORKING PAGE

Allowing the switcher to contact a network time protocol (NTP) server ensures that its system time is correct, and makes the time zone editable. You also have the option to specify which NTP server to use.

1. Enable Automatic NTP Updating.
2. Select the desired time zone from the list.
3. If desired, specify the NTP server to use. If you are not sure about this, use the default.
4. Save your changes.
5. To update the system time immediately, select Refresh. Otherwise, the time will update the next time the device contacts the NTP server.



Managing Access and Passwords

SECURITY PAGE

Set up the appropriate level of security to conform to your organization's requirements.

Idle session time-out – check the box labeled Automatically Expire Idle Sessions to automatically log you out of the web interface after 30 minutes without interaction.

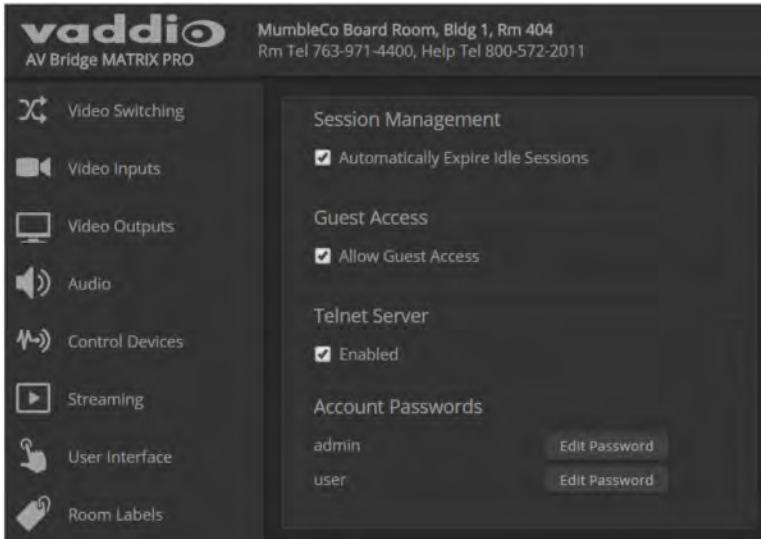
Require a password for user access – clear the box labeled Allow Guest Access. (A password is always required for administrative access via the web interface or a Telnet session.)

Disable Telnet access – clear the box labeled Telnet Server Enabled.

Change a password – Select Edit Password for the appropriate account (user or admin) to open the Edit Password dialog box.

Note

For best security, Vaddio strongly recommends changing the user and admin passwords. Using the default passwords leaves the product vulnerable to tampering.

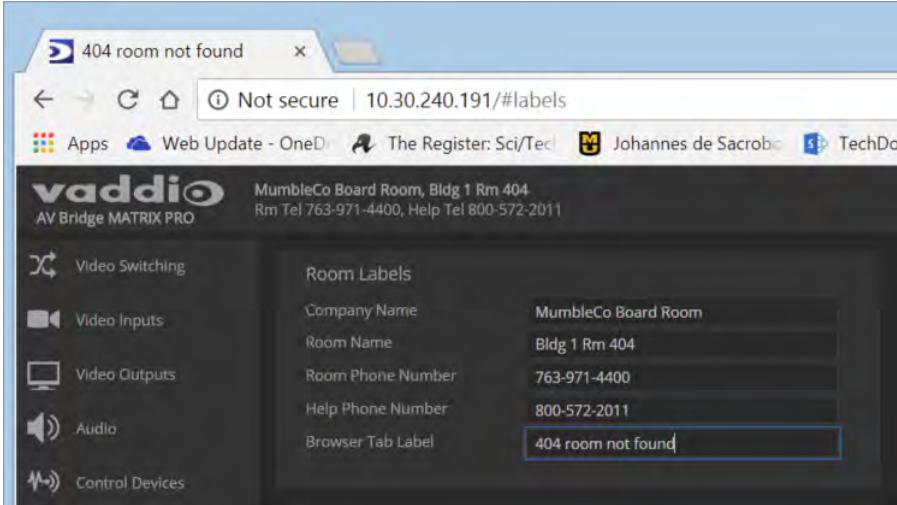


Adding Room Information

ROOM LABELS PAGE

Enter information about the location of the equipment and the local IT or A/V help line. This information will be displayed on all pages of the web interface.

If you are using version 2.0.0 firmware or later, you can also specify how the browser tab is labeled.



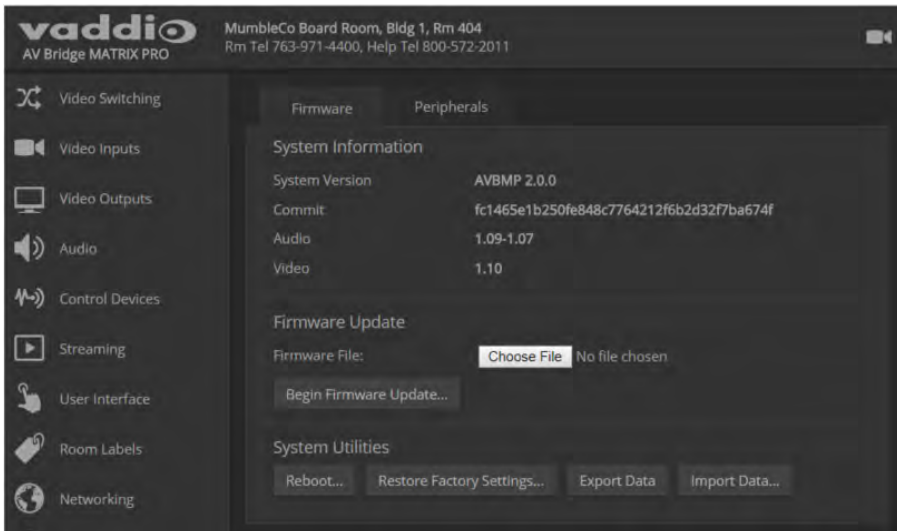
Rebooting

SYSTEM PAGE

This can help if the device stops responding as you expect.

In the System Utilities section, select Reboot, then confirm. You will need to log in again after the reboot.

If rebooting the device doesn't fix the problem, you may need to [reset to factory defaults](#). But before you take that step, [back up the configuration](#).



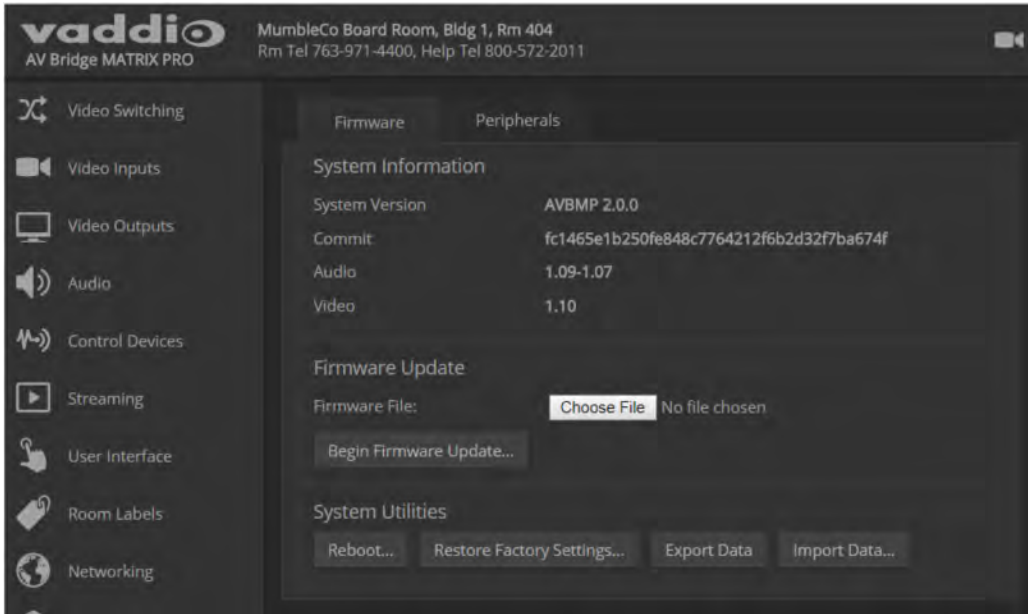
Exporting and Importing Configuration Data

SYSTEM PAGE, FIRMWARE TAB

If your organization uses several of the same product, you may choose to configure one of them, verify that the configuration is good, and then copy it to the others. Most Vaddio professional AV products and cameras have this capability.

Note

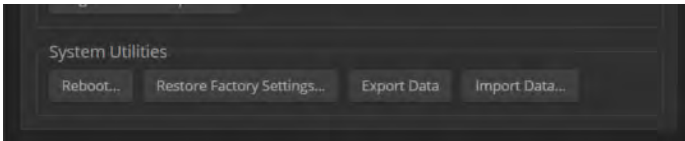
Vaddio products using older firmware may be unable to import a configuration file that was exported from a different version of firmware.



To export a configuration:

To save a copy of the current configuration, select Export Data.

The configuration exports as a .dat file and downloads to your default file download location. The filename is the device's hostname followed by the .dat file extension. If you only need to back up the configuration, you're done.



Note

This operation does not copy device-specific data such as hostname or sensitive data such as passwords.

To import a configuration:

1. Select Import. The Import Data box opens.
2. Select Choose File, and browse to the .dat file to be imported.
3. Select Begin Importing Data. When the import is complete, the device reboots and you will need to log in again.

Updating the Firmware

SYSTEM PAGE, FIRMWARE TAB

From time to time, we issue new firmware to introduce new features and other product improvements, and to fix issues that turn up. We recommend keeping all your Vaddio products up to date, to get the most out of them.

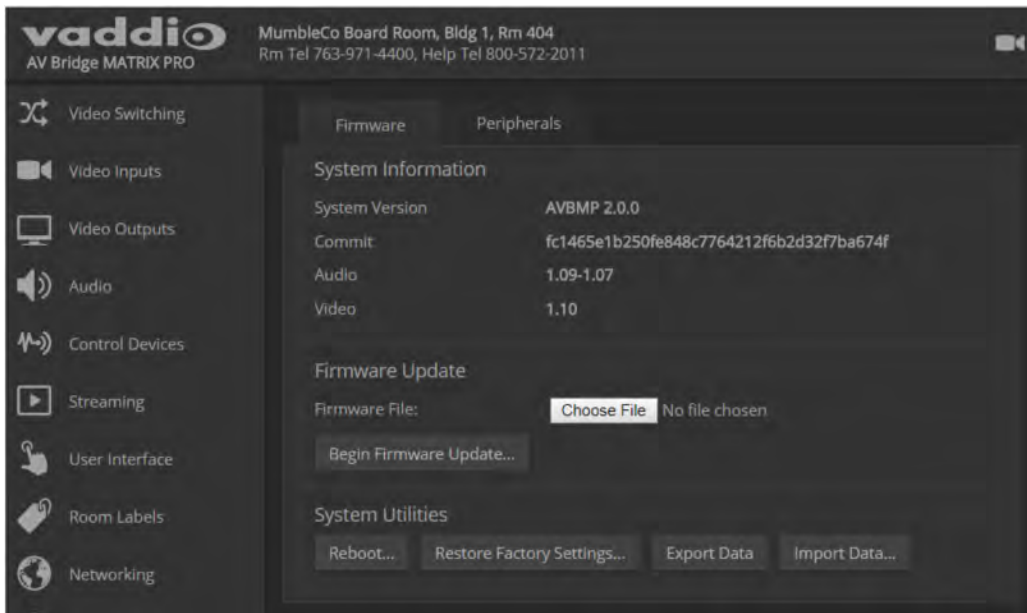
Firmware updates do not change the configuration or password.

Note

It is rare for an update to generate errors. If this happens, please read them carefully and record them. Screen shots of the error message may be very helpful in troubleshooting the problem. If the update does not finish successfully, contact Vaddio technical support immediately.

1. In a separate browser tab or window, go to the appropriate product page, or to the software updates section of support.vaddio.com and download the appropriate update file.
2. In the Firmware Update pane, select Choose File. Then browse to the update file and select it.
3. Select Begin Firmware Update.
4. READ the information in the Confirm dialog box and be sure you understand it.
5. When you are ready to start the update, select Continue. The device reboots as the last step in the update process.

We recommend checking for firmware updates for your Vaddio cameras when you update other products that work with them.



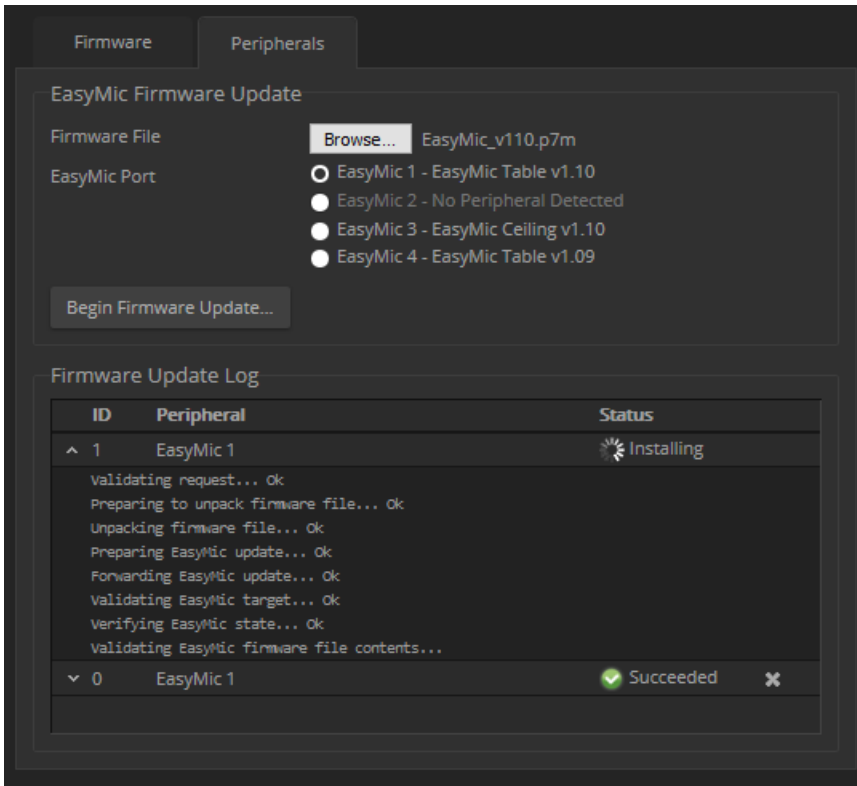
Updating Microphone Firmware

SYSTEM PAGE, PERIPHERALS TAB

If you are using version 2.0.0 firmware or later, you can use the AV Bridge MATRIX PRO to update the connected Vaddio microphones. The process is similar to updating the AV Bridge MATRIX PRO firmware. Only one microphone at a time can be updated.

1. In a separate browser tab or window, go to the appropriate product page, or to the software updates section of support.vaddio.com and download the appropriate update file.
2. On the Peripherals tab, select the port connection for the microphone to be updated.
3. Select Choose File. Then browse to the update file and select it.
4. Select Begin Firmware Update.
5. READ the information in the Confirm dialog box and be sure you understand it.
6. When you are ready to start the update, select Continue.

The Firmware Update Log pane displays log messages during the update, and displays "Succeeded" when the microphone is updated and ready to use.



Restoring Factory Defaults

SYSTEM PAGE

Restoring factory settings will overwrite anything you have added or customized, such as the admin password, video, and audio configurations.

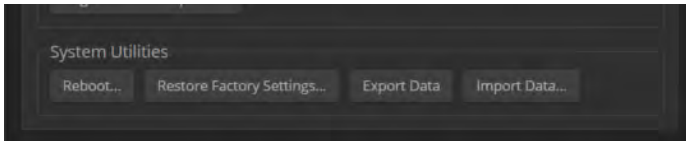
If you export a known good configuration, you can import it again after restoring factory settings. See [Exporting and importing configuration data](#).

To restore the original factory settings:

Select Restore Factory Settings.

A confirmation message informs you that the action cannot be undone. This is your cue to make sure you have successfully exported the configuration.

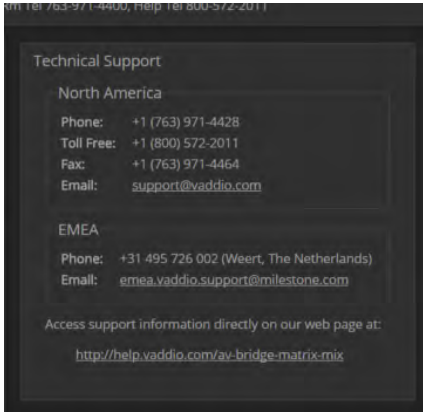
This operation logs you out and resets the admin password to its factory default value of `password`.



Contacting Vaddio Technical Support

HELP PAGE

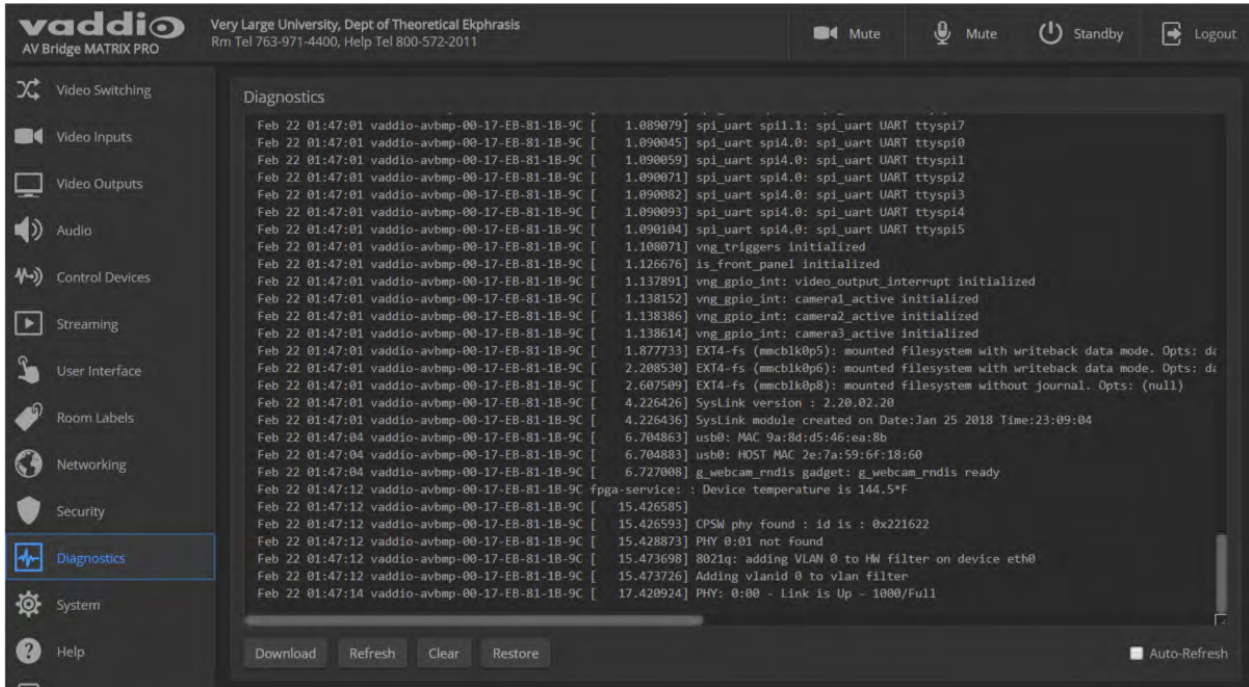
If you can't resolve an issue using your troubleshooting skills (or the [Troubleshooting](#) table in this manual), we are here to help. You'll find technical support contact information on the Help page.



Viewing Diagnostic Logs

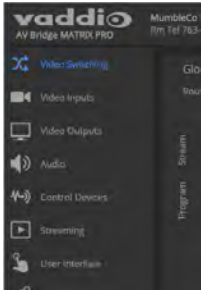
DIAGNOSTICS PAGE

If you encounter a problem that you can't solve, your Vaddio technical support representative may ask you to download and email the log file available from the Diagnostics screen.



Performance and Behavior Settings

Performance and behavior settings for the AV Bridge MATRIX PRO multimedia room solution include:



- Configuring video inputs, outputs, and switching behavior
- Adjusting audio inputs and outputs
- Configuring the audio matrix
- Creating macros and associating them with triggers
- Configuring USB streaming and IP streaming
- Specifying what happens when the switcher goes to standby mode
- Specifying which audio inputs are available from the operator's interface (web or multiviewer)
- Locking the front panel controls

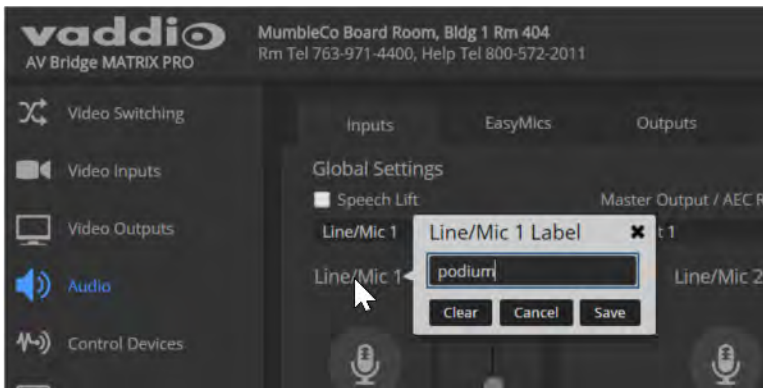
Customizing Labels

Some of the labels in the web interface are customizable – because you may find, for example, that "Podium" is a more useful label than "Line/Mic 1." You can rename:

- Video sources
- Camera presets
- Audio inputs and outputs

When in doubt, try it.

Right-click the label you want to rename. If it is customizable, it opens a dialog box.

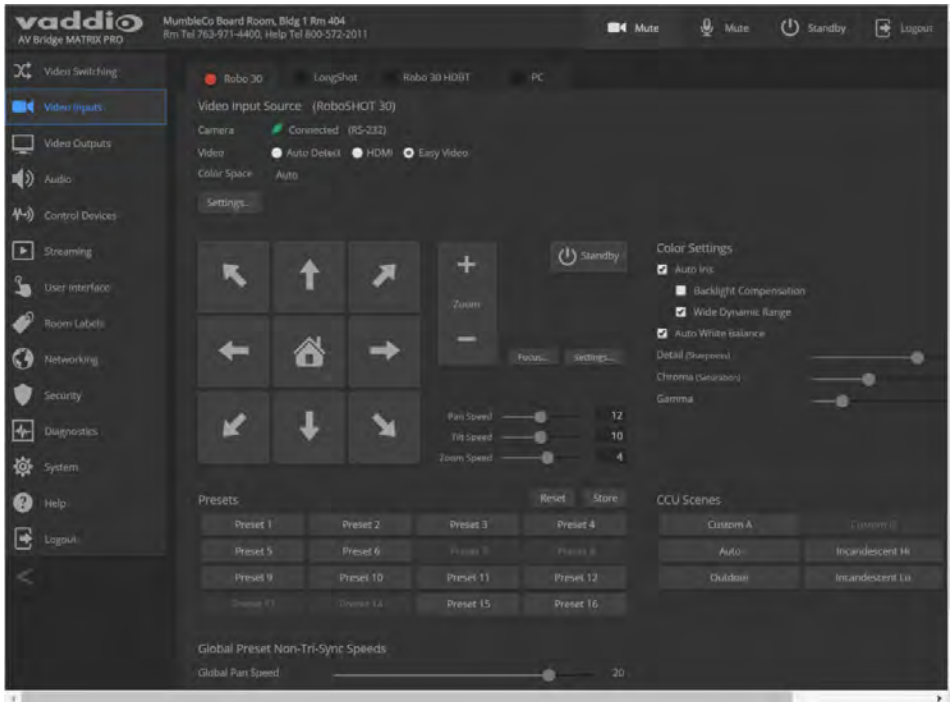


Working with Video Inputs

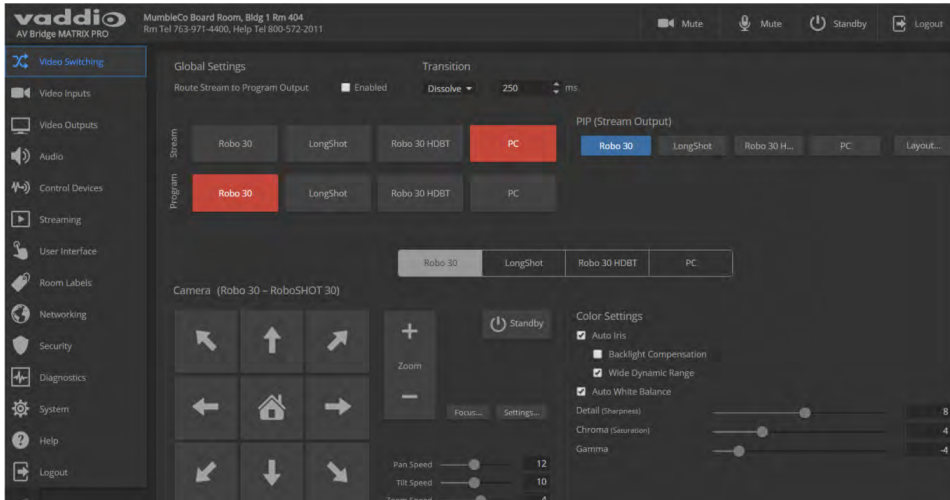
VIDEO INPUTS PAGE

The web interface provides a control page with tabs for each camera and other video input device, allowing you to control the connected cameras without accessing their individual web interfaces. A red tally indicator identifies the tab for the current program source.

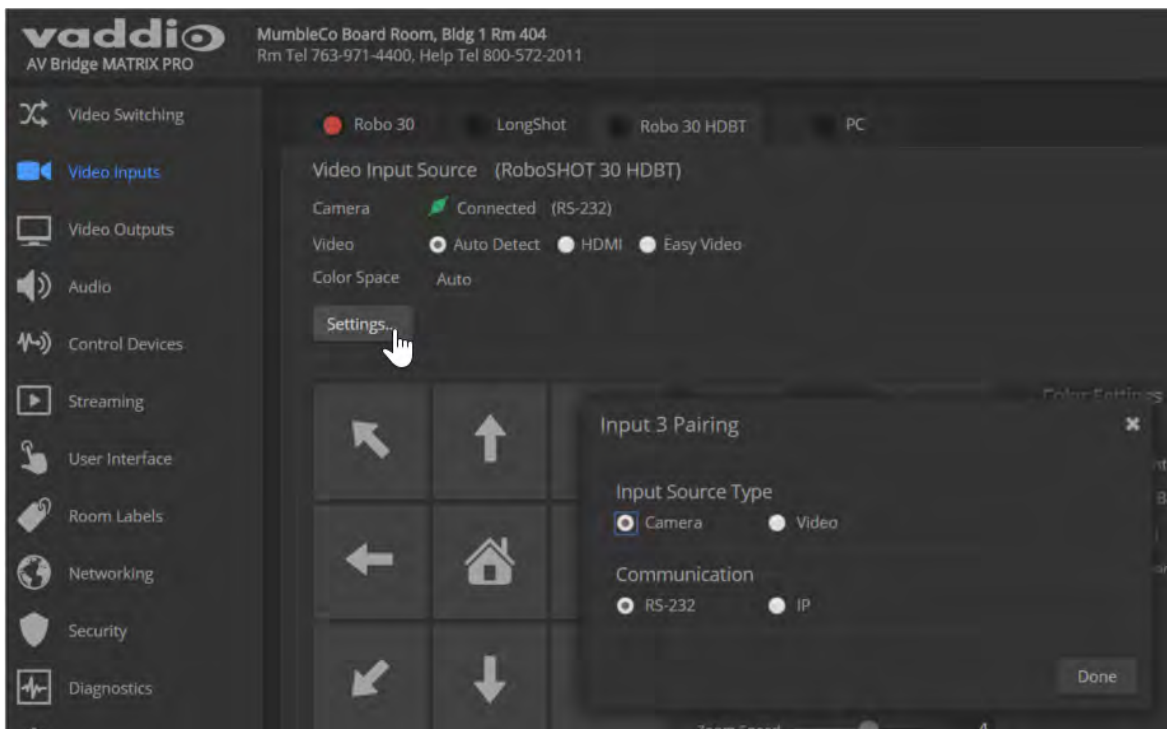
The tabs for connected Vaddio cameras present the same controls present in the cameras' own web interfaces.



Controls for the connected video sources (inputs 1 through 4) are also available from the Video Switching page.



In most cases, the AV Bridge MATRIX PRO will configure correctly for the devices connected as video inputs; however, each tab on the Video Inputs page presents configuration controls.

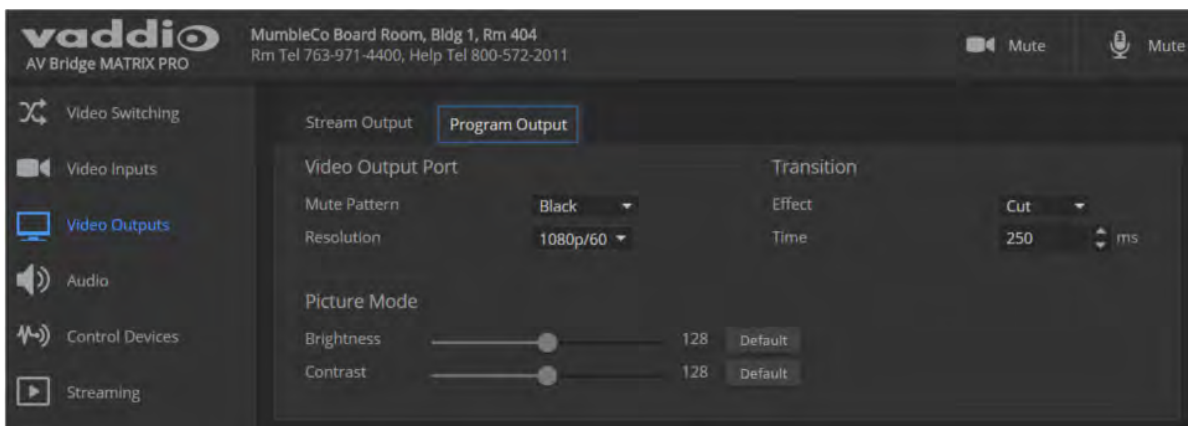
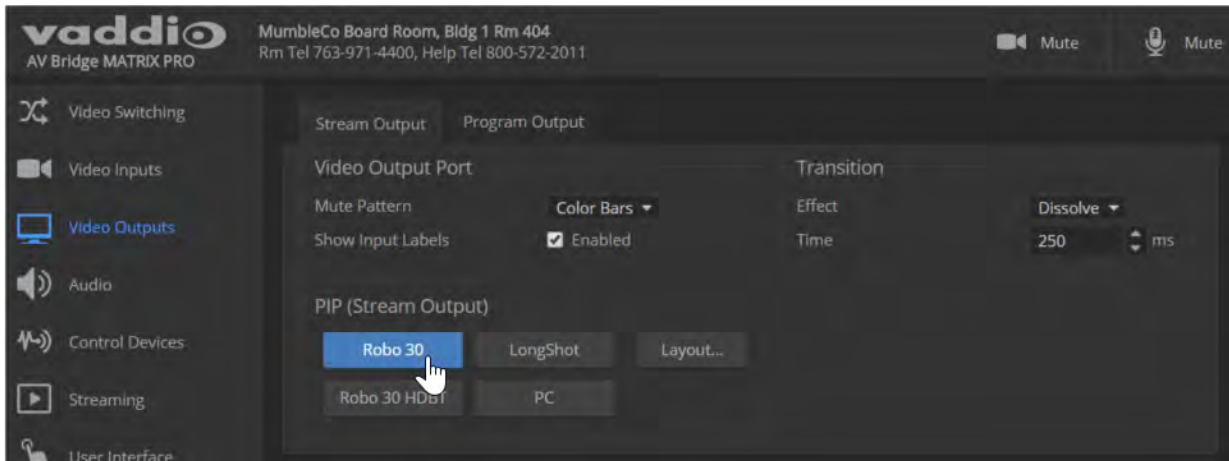


Configuring Video Outputs

The Video Outputs page provides controls to configure the video outputs. Select the tab for the output you need to work with.

Controls available for the program and stream outputs include:

- Output resolution/frame rate (Program output)
- Video mute pattern
- Video transition effect and time
- PIP source and layout (Stream output)
- Brightness and contrast (Program output; for use with displays that lack these adjustments)

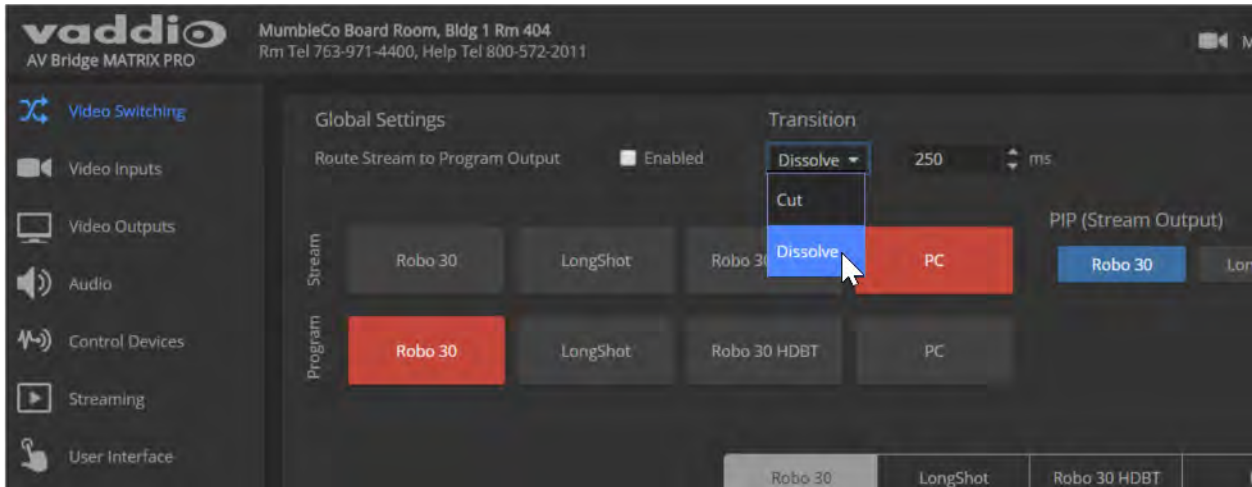


Setting Video Transition Type and Speed

VIDEO SWITCHING PAGE

The video transition settings determine how the program output behaves when you switch its source from one video input to another.

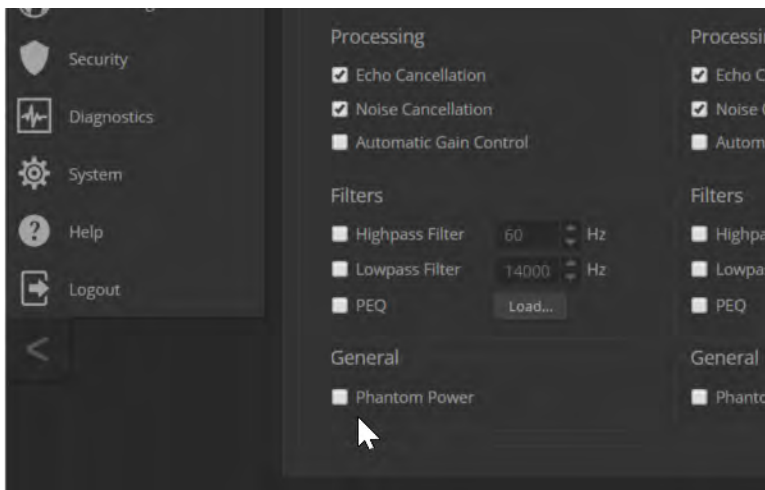
In the Global settings area, select the transition type for the currently selected switching mode. If necessary, adjust the transition time.



Enabling Phantom Power to Microphones

AUDIO PAGE, INPUTS TAB

To supply 48 VDC phantom power to a connected microphone, check the Phantom Power checkbox below the controls for the Line/Mic input.

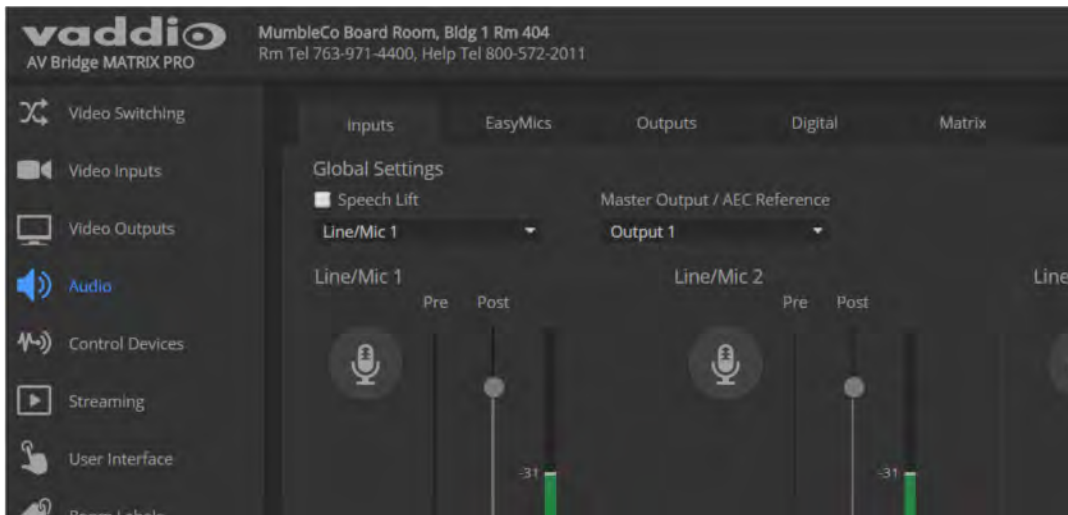


Configuring Audio Settings

AUDIO PAGE

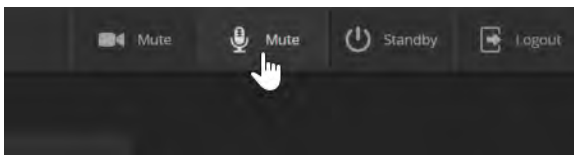
The web interface provides separate controls for each of the audio inputs and outputs:

- Inputs (corresponding to the Mic/Line Inputs area of the connector panel) – Line/Mic inputs 1 through 4
- EasyMics (corresponding to the EasyMic Ports area of the connector panel) – Vaddio tabletop and ceiling microphones
- Outputs (corresponding to the Line Outputs area of the connector panel) – powered speakers or other audio outputs
- Digital (corresponding to the USB, PC HDMI In, and HDMI Out connectors) – USB playback and record, HDMI audio input and output
- Matrix – defines audio routing.



Muting the Microphones

Use the microphone mute control at the top of any page.



Controlling Volume on Individual Inputs or Outputs

AUDIO PAGE, INPUTS, EASYMICS, OUTPUTS, AND DIGITAL TABS

Use the button to mute the desired audio input or output. Use the slider to set the volume.

Note

For best performance with most computers, we recommend setting the USB Record volume high.



Default Microphone Settings

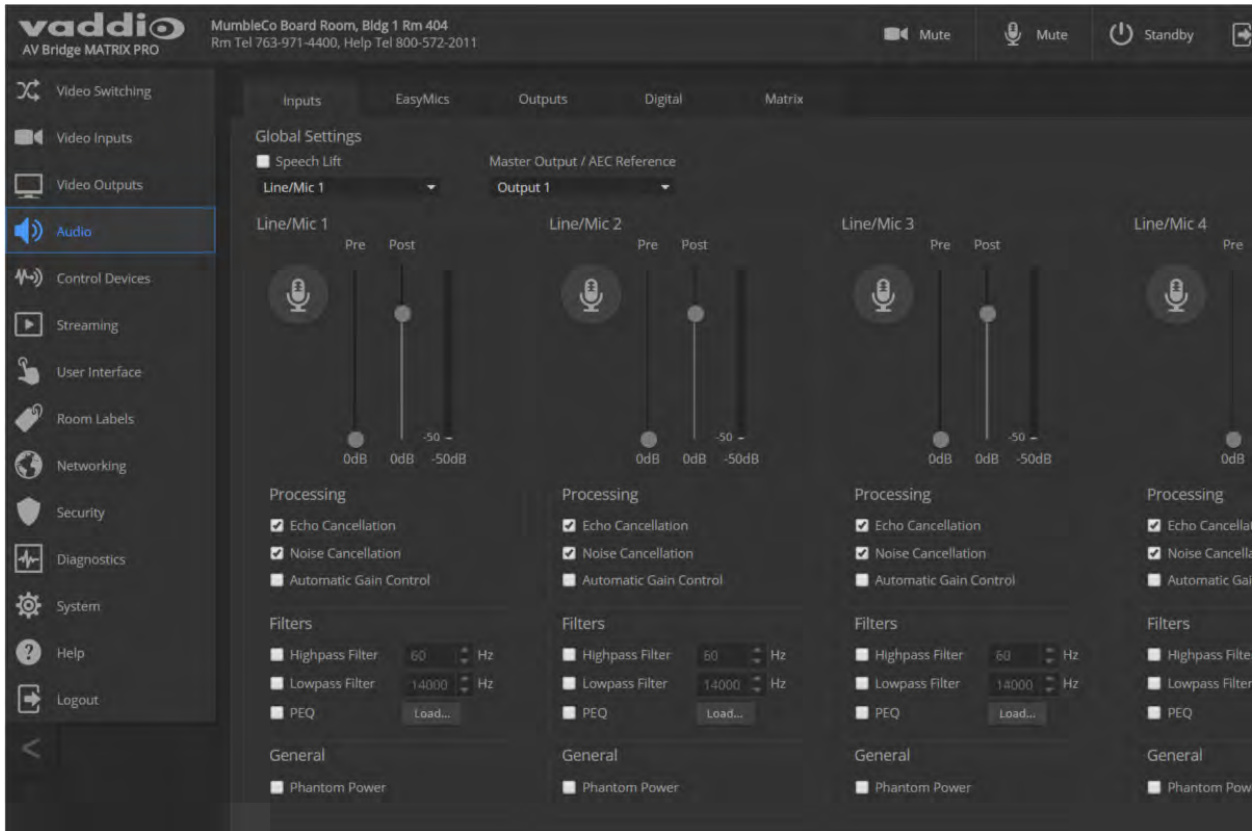
AUDIO PAGE, INPUTS AND EASYMICS TABS

Acoustic Echo Cancellation – Enabled; prevents audio feedback by cancelling the specified output signal out of the line/mic input.

Noise Cancellation – Enabled; suppresses ambient noise.

Automatic Gain Control – Disabled; adjusts gain to compensate for differences in volume as different people speak.

Mic Boost (EasyMics only) – Disabled; increases microphone volume by 3dB. *Vaddio does not recommend enabling Mic Boost.*



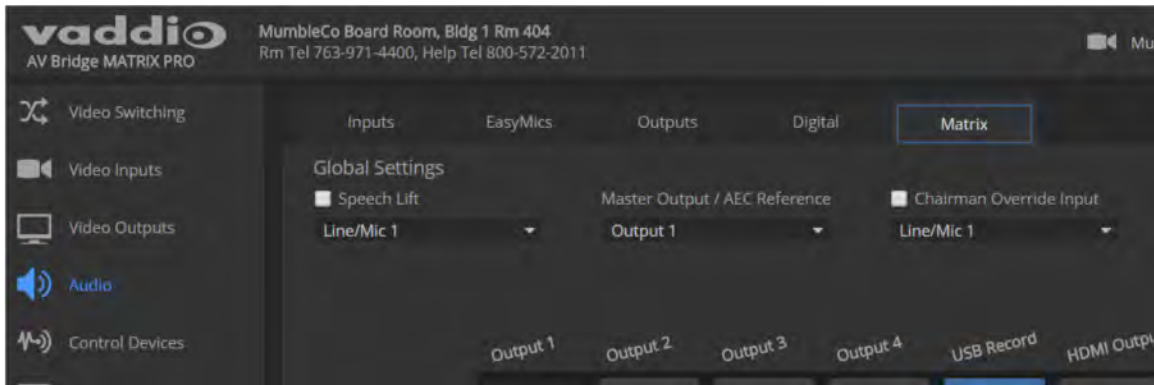
Microphone Settings for Environments with Audiences

AUDIO PAGE, INPUTS AND MATRIX TABS

Speech Lift: Feeds the signal from the specified microphone to the speakers in the room, so that people in the back of the room can hear the person who is speaking.

Master Output/AEC Reference: Specifies the audio output that will be used as the reference for acoustic echo cancellation.

Chairman Override: Gives priority to the specified microphone when more than one person is speaking. (Matrix tab only)



Microphone Adjustments

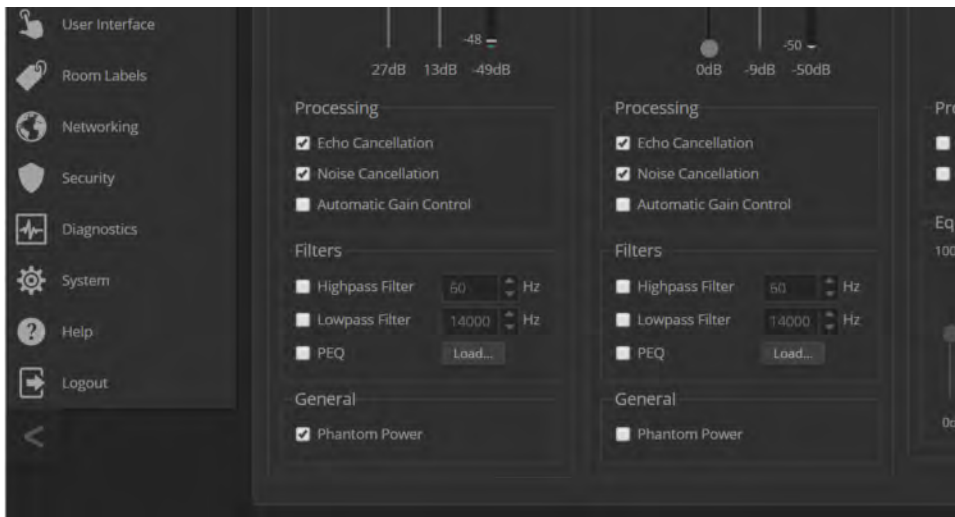
AUDIO PAGE, INPUTS TAB

To adjust for more natural speech reproduction:

- **High-pass filter** – Specify the lowest frequency that the microphone should pick up. Use this setting to reduce low-frequency background noise such as heating/air conditioning systems.
- **Low-pass filter** – Specify the highest frequency that the microphone should pick up. Use this setting to reduce hissing sounds and make speech sound natural.
- **PEQ** (parametric equalizer) – Increase or reduce the volume of specific frequency ranges to compensate for the audio challenges unique to the situation.

Note

As a best practice, use the equalizer to attenuate undesirable frequency ranges rather than to boost the desirable frequencies.



Speaker Adjustments

AUDIO PAGE, ANALOG AND STREAMING TABS

AUDIO PAGE, OUTPUTS AND

To sync the sound with the video:

If the video lags noticeably behind the audio, check the Delay box for the appropriate audio outputs (Outputs or Digital tab) and enter a delay value in msec. The delay may differ from one output to another.

To compensate for differing speech volumes:

If some people on the far end are inaudible while others are too loud, check the Compressor box to reduce the dynamic range from the connected speakers. (Outputs tab only.)

To compensate for specific audio issues on the far end:

Use the equalizers for the analog outputs to attenuate specific frequency ranges. This can help if the far-end audio includes unwanted elements such as a rumbling HVAC system or a cricket in the room. (Outputs tab only.)



Routing Audio

AUDIO PAGE, MATRIX TAB

The audio matrix shows where each audio output originates. Each column of the matrix shows one audio output, and each row shows one audio input. Table cells highlighted in blue mean that the input represented in that row is routed to the output represented in that column.

To specify how the AV Bridge MATRIX PRO uses a given audio input, locate its row. Locate the column representing the desired output and select the table cell where the desired row and column intersect.

vaddio AV Bridge MATRIX PRO

MumbleCo Board Room, Bldg 1 Rm 404
Rm Tel 763-971-4400, Help Tel 800-572-2011

Mute Mute Standby Logout

Video Switching
Video Inputs
Video Outputs
Audio
Control Devices
Streaming
User Interface
Room Labels
Networking
Security
Diagnostics
System
Help
Logout

Inputs EasyMics Outputs Digital Matrix

Global Settings
 Speech Lift
 Line/Mic 3
 Master Output / AEC Reference
 Output 4
 Chairman Override Input
 Line/Mic 4

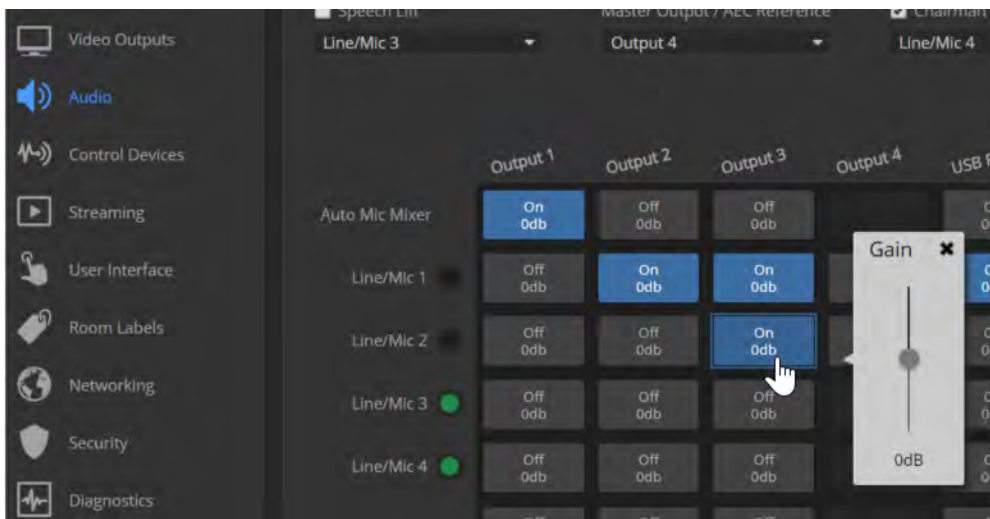
	Output 1	Output 2	Output 3	Output 4	USB Record	HDMI Output
Auto Mic Mixer	On 0db	Off 0db	Off 0db		Off 0db	Off 0db
Line/Mic 1	Off 0db	On 0db	On 0db	Off 0db	On 0db	Off 0db
Line/Mic 2	Off 0db	Off 0db	On 0db	Off 0db	Off 0db	Off 0db
Line/Mic 3	Off 0db	Off 0db	Off 0db		Off 0db	Off 0db
Line/Mic 4	Off 0db	Off 0db	Off 0db		Off 0db	Off 0db
EasyMic 1	Off 0db	Off 0db	Off 0db		Off 0db	Off 0db
EasyMic 2	Off 0db	Off 0db	Off 0db		Off 0db	Off 0db
EasyMic 3	Off 0db	Off 0db	Off 0db		On 3.95db	Off 0db
EasyMic 4	Off 0db	Off 0db	Off 0db		Off 0db	Off 0db
USB Playback	On 0db	Off 0db	Off 0db	Off 0db		Off 0db
HDMI Input	Off 0db	Off 0db	Off 0db	Off 0db	Off 0db	Off 0db

Auto Mic Mixer
 Line/Mic 1
 Line/Mic 2
 Line/Mic 3
 Line/Mic 4
 EasyMic 1
 EasyMic 2
 EasyMic 3
 EasyMic 4

Legend
● In Auto Mic Mixer
 Enabled
 Disabled
 Unavailable
 Speech Lift

Setting Gain Between Input and Output (Crosspoint Gain)

To adjust crosspoint gain between any input and the output to which it is routed, right-click the table cell in the matrix to open a gain control.



Configuring Streaming Settings

STREAMING PAGE

Note

After making changes on this page, save them.

Enable or Disable Streaming

IP and USB streaming are enabled by default. Use the Enable USB Streaming and Enable IP Streaming checkboxes to change this. You may need to reboot the device for your change to take effect.

Edit the USB Device Name

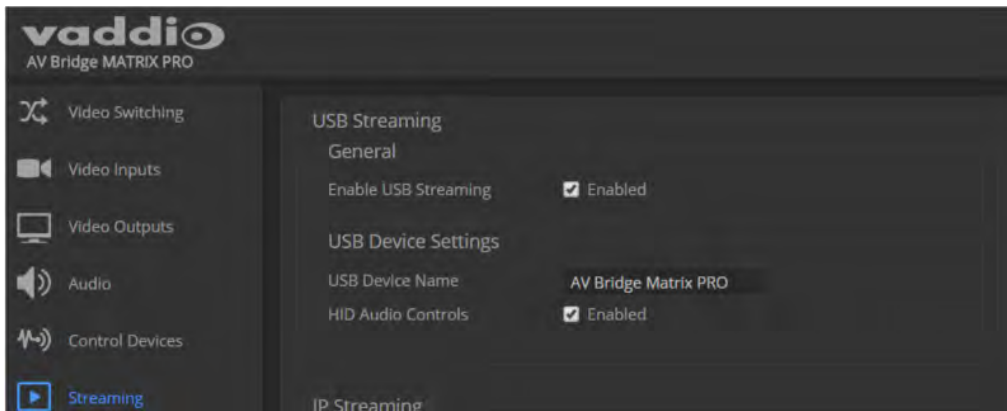
To change the way the camera shows up in your soft client's camera selection list, edit the USB Device Name.

Allow Soft Client Control of the System

To allow conferencing applications to control the audio, check the Enabled box for HID Audio Controls.

Note

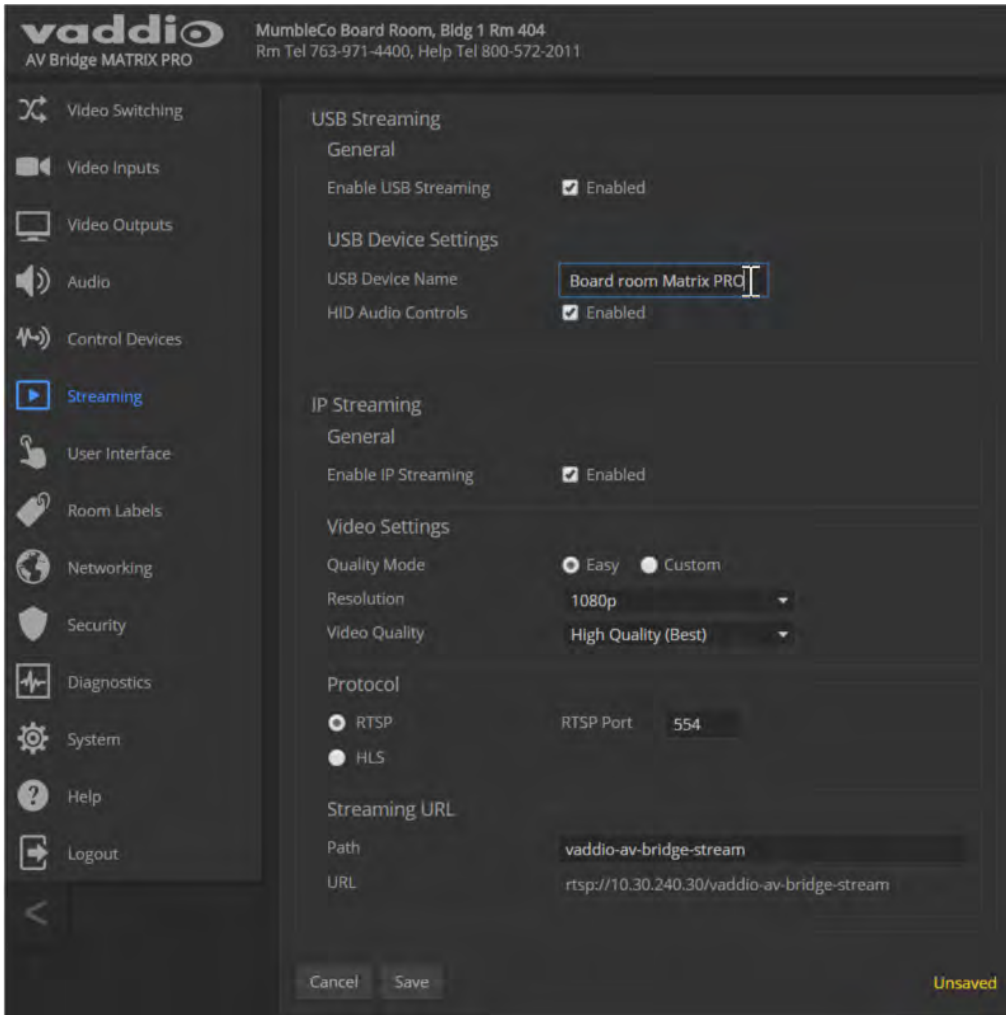
USB streaming settings are automatically negotiated with the conferencing application.



Set IP Streaming Settings

If you are not sure about these settings, start with the defaults.

1. Select the video Quality Mode: Easy or Custom. Easy automatically sets the recommended frame rate; Custom provides additional control.
2. Select the desired IP streaming resolution.
3. Easy quality mode only: Select Video Quality.
4. Custom quality mode only: Select the desired IP streaming frame rate.



Advanced IP Streaming Settings

RTSP and RTSP port: In most cases, RTSP (the default protocol) is preferable. We recommend using the default RTSP port number unless you need to change it.

HLS: For Apple® environments.

Streaming URL: Edit the path to change the portion of the streaming URL that appears after the IP address.

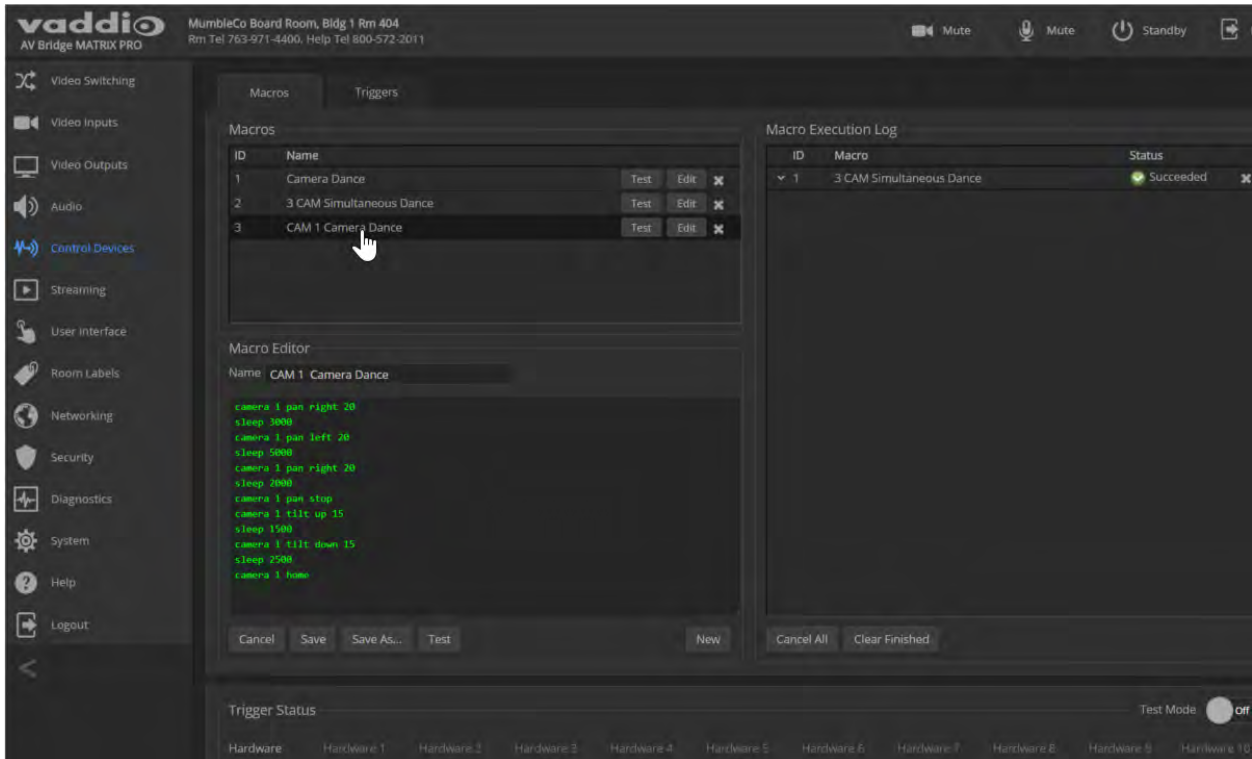
Setting up Macros and Triggers

CONTROL DEVICES PAGE

Macros may use any of the device's serial API commands.

To edit an existing macro:

Select the Edit button associated with the macro, or select the macro name. The macro opens in the Macro Editor.



To write and test a macro:

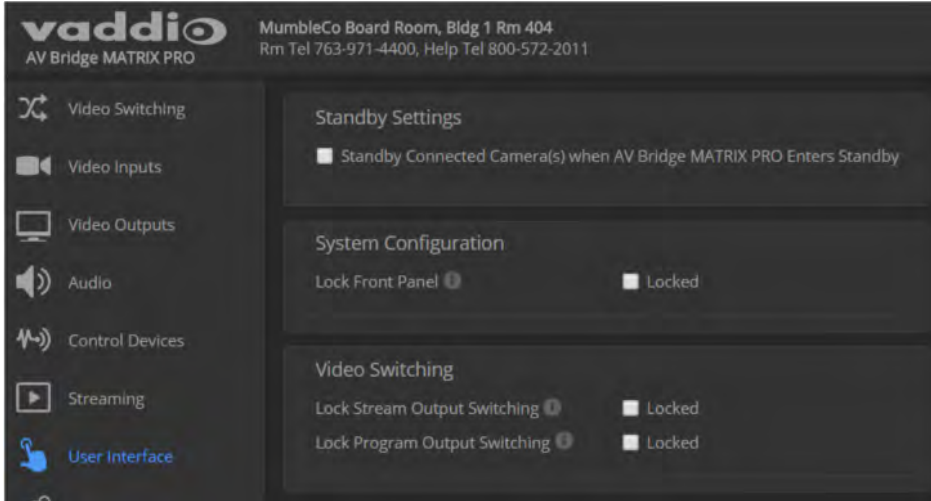
1. In the Macro Editor area, select New.
2. Give the macro a brief, descriptive name.
3. Enter the commands to perform the desired actions.
4. Save the macro.
5. Select Test to verify that the macro does what it needs to do. The Macro Execution Log displays each command as it executes, and indicates any syntax errors that may be present.
6. Make changes as needed, saving and testing until you get the desired results.

Configuring Standby Behavior

USER INTERFACE PAGE

To place the cameras in standby mode along with the AV Bridge MATRIX PRO, check the box marked "Standby Connected Cameras when AV Bridge MATRIX PRO Enters Standby."

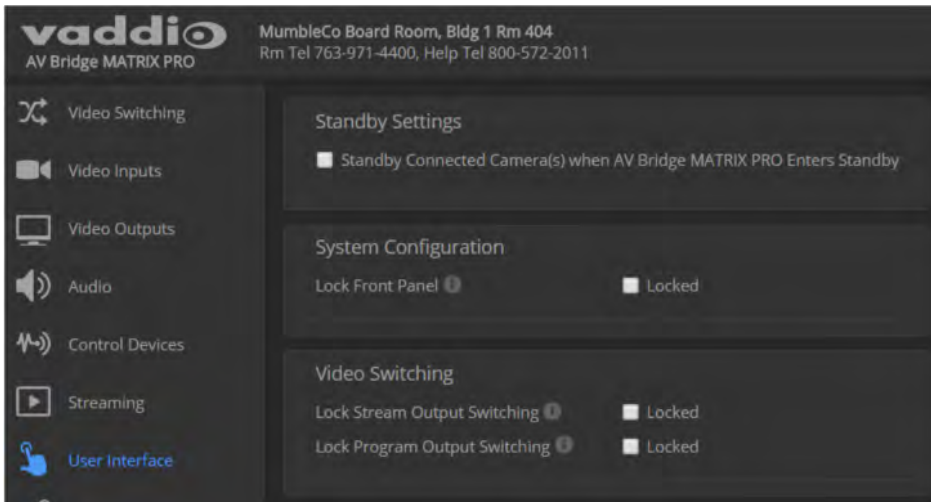
Leave this check box unchecked if the cameras should remain powered up.



Locking the Front Panel Controls

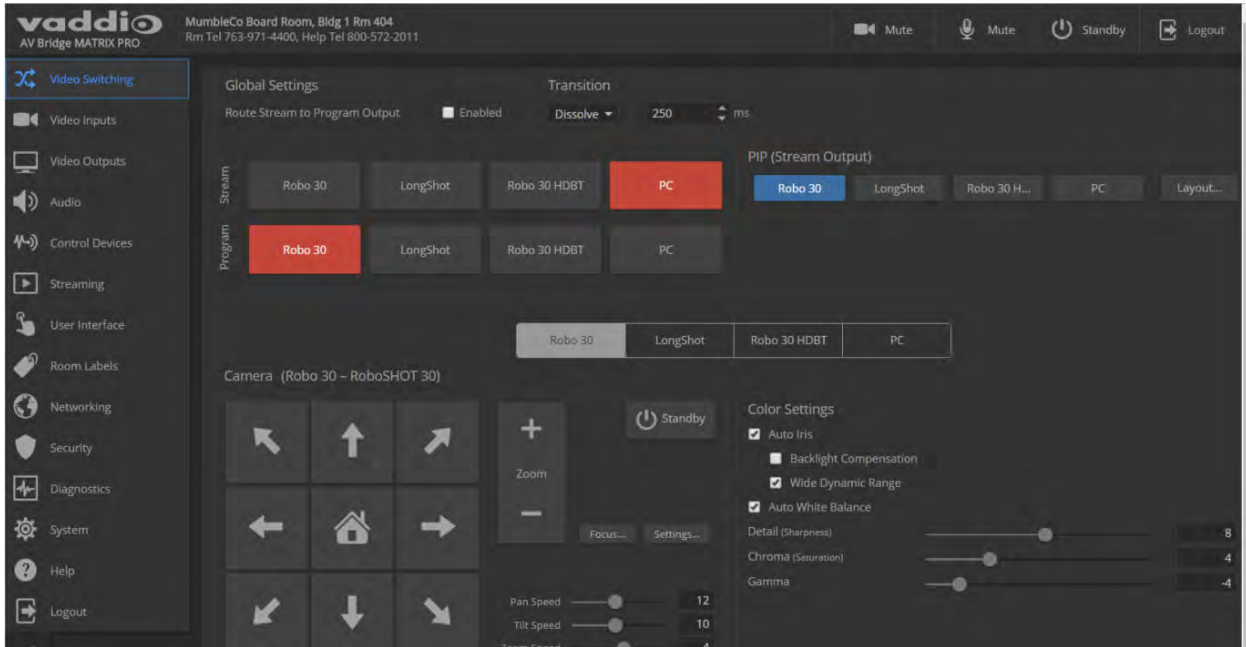
USER INTERFACE PAGE

To disable the front panel controls, check the Front Panel Lock box in the System Configuration section of the User Interface page. The front panel message shows that the controls are locked, and displays the device's IP address.



Operating the Device from the Admin Interface

The Video Switching page provides most of the controls available on the operator's pages (guest access or user account login). Note that the administrator has color, lighting, and speed controls that are not available to the operator.



Troubleshooting and Care


If the equipment does not behave as you expect, you may need to contact the system administrator for help – or you may need Vaddio Technical Support. Use this table to determine whether it's something you can correct on your own.

Note

If the equipment behaves in a way that suggests even a remote possibility of a bad cable, please try a known good, factory made patch cable with the same pin-out. Our technical support team encounters defective factory-made cables from time to time, and we've seen cables that only worked some of the time. A cable may pass a standard continuity check but be unable to pass enough power to the connected device.

Crimping tools can crimp unevenly, contacts can break internally, and individual conductors in the cable can break inside the jacketing material. Any of these can cause insufficient or intermittent contact, resulting in a cable that passes a continuity check but does not work when it is routed into place or repositioned.

(The author would like to confess having made more than a few almost-good cables. It happens.)

What is it doing?	Possible causes	Check and correct
Unable to log in successfully.	The web interface is out of sync with the device. This can happen if more than one person is controlling the device.	Use the browser's page refresh button.
	The password has been changed.	Contact your system administrator.
Unable to access the device's stream.	Streaming is not enabled on the device.	Log in to the device's web interface as admin and enable the appropriate stream.
Unable to control a specific camera.	A cable is connected to the wrong port.	Check and correct cable connections.
	A cable is bad. (This can even be a problem with factory cables.)	Check with a known reliable cable with the same pin-out.
DHCP addresses are not assigned properly when cameras are connected to all three EZPower Video connections.	The AV Bridge MATRIX PRO does not have enough power to drive all three cameras.	Be sure you are using the 24 VDC, 3.75A power supply.
Various audio issues. Microphones requiring phantom power do not perform properly.	Wrong power supply connected. 	Be sure you are using the 24 VDC, 3.75A power supply. According to the engineer who identified this problem, the 24 VDC, 3.75A power supply looks just like a 12 VDC power supply, but works much better.

What is it doing?	Possible causes	Check and correct
The device is behaving in unexpected ways.	More than one operator has control of the device.	
The display connected to the HDMI output shows a pattern of color bars or a blue screen.	Video is muted.	Unmute the video.
The display connected to the HDMI output shows a black screen.	Video is muted.	Unmute the video.
	The Program video source is in standby mode or is disconnected.	Check the camera or other video source.
	"Route Stream to Program Output" is selected and streaming is disabled.	In the admin interface, deselect "Route Stream to Program Output" or enable at least one of the streams (reboot required).

Operation, Storage, and Care

For smears or smudges on the product, wipe with a clean, soft cloth. Do not use any abrasive chemicals.

Keep this device away from food and liquids.

Do not operate or store the device under any of the following conditions:

- Temperatures above 40°C (104°F) or below 0°C (32°F)
- High humidity, condensing or wet environments
- Inclement weather
- Severe vibration
- In a microwave oven
- Dry environments with an excess of static discharge



Do not attempt to take this product apart. There are no user-serviceable components inside.

Compliance Statements and Declarations of Conformity

Compliance testing was performed to the following regulations:

FCC Part 15 (15.107, 15.109), Subpart B	Class A
ICES-003, Issue 54: 2012	Class A
EMC Directive 2004/108/EC	Class A
EN 55022: December 2010	Class A
EN 55024: November 2010	Class A
KN22 2008 (CISPR 22: 2006)	Class A
KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)	Class A
IEC 60950-1:2005 (2nd Edition); Am 1: 2009 + Am 2: 2013	Safety
EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013	Safety

FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B, of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference including interference that may cause undesired operation of the device.



Changes or modifications not expressly approved by Vaddio can affect emission compliance and could void the user's authority to operate this equipment.

ICES-003 Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.



European Compliance

This product has been evaluated for electromagnetic compatibility under the EMC Directive for Emissions and Immunity and meets the requirements for a Class A digital device. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Standard(s) To Which Conformity Is Declared:



EMC Directive 2004/108/EC

EN 55022: December 2010

EN 55024: November 2010

EN 61000-4-2: 1995 + Amendments A1: 1998 + A2: 2001

EN 61000-4-3: 2006 + A1: 2008

EN 61000-4-4: 2004 + Corrigendum 2006

EN 61000-4-5: 2006

EN 61000-4-6: 2009

EN 61000-4-8: 2010

EN 61000-4-11: 2004

KN22 2008 (CISPR 22: 2006)

KN24 2008 (CISPR 24: 1997 + A1: 2000 + A2: 2002)

EN 61000-4-2

EN 61000-4-3

EN 61000-4-4

EN 61000-4-5

EN 61000-4-6

EN 61000-4-8

EN 61000-4-11

IEC 60950-1: 2005 (2nd Edition); Am 1: 2009 + Am 2: 2013

EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013

Conducted and Radiated Emissions

Immunity

Electrostatic Discharge

Radiated Immunity

Electrical Fast Transients

Surge Immunity

Conducted Immunity

Power Frequency Magnetic Field

Voltage Dips, Interrupts and Fluctuations

Conducted and Radiated Emissions

IT Immunity Characteristics

Electrostatic Discharge

Radiated Immunity

Electrical Fast Transients

Surge Immunity

Conducted Immunity

Power Frequency Magnetic Field

Voltage Dips, Interrupts and Fluctuations

Safety

Safety

Warranty Information

See Vaddio Warranty, Service and Return Policies posted on support.vaddio.com for complete details.

Hardware* warranty: Two (2) year limited warranty on all parts and labor for Vaddio manufactured products. Vaddio warrants its manufactured products against defects in materials and workmanship for a period of two years from the day of purchase, to the original purchaser, if Vaddio receives notice of such defects during the warranty. Vaddio, at its option, will repair or replace products that prove to be defective. Vaddio manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry standard practices.

Exclusions: The above warranty shall not apply to defects resulting from improper or inadequate maintenance by the customer, customers applied software or interfacing, unauthorized modifications or misuse, mishandling, operation outside the normal environmental specifications for the product, use of the incorrect power supply, modified power supply or improper site operation and maintenance. OEM and special order products manufactured by other companies are excluded and are covered by the manufacturer's warranty.

Vaddio Service Department: Vaddio will test, repair, or replace the product or products without charge if the unit is under warranty. If the product is out of warranty, Vaddio will test then repair the product or products. The cost of parts and labor charge will be estimated by a technician and confirmed by the customer prior to repair. All components must be returned for testing as a complete unit. Vaddio will not accept responsibility for shipment after it has left the premises.

Vaddio Technical Support: Vaddio technicians will determine and discuss with the customer the criteria for repair costs and/or replacement. Vaddio Technical Support can be contacted by email at support@vaddio.com or by phone at one of the phone numbers listed on support.vaddio.com.

Return Material Authorization (RMA) number: Before returning a product for repair or replacement request an RMA from Vaddio's technical support. Provide the technician with a return phone number, e-mail address, shipping address, product serial numbers and original purchase order number. Describe the reason for repairs or returns as well as the date of purchase. See the General RMA Terms and Procedures section for more information. RMAs are valid for 30 days and will be issued to Vaddio dealers only. End users must return products through Vaddio dealers. Include the assigned RMA number in all correspondence with Vaddio. Write the assigned RMA number clearly on the shipping label of the box when returning the product. All products returned for credit are subject to a restocking charge. Special order product are non-cancelable and not returnable.

Voided warranty: The warranty does not apply if the original serial number has been removed or if the product has been disassembled or damaged through misuse, accident, modifications, use of incorrect power supply, use of a modified power supply or unauthorized repair.

Shipping and handling: Vaddio will not pay for inbound shipping transportation or insurance charges or accept any responsibility for laws and ordinances from inbound transit. Vaddio will pay for outbound shipping, transportation, and insurance charges for all items under warranty but will not assume responsibility for loss and/or damage by the outbound freight carrier. If the return shipment appears damaged, retain the original boxes and packing material for inspection by the carrier. Contact your carrier immediately.

Products not under warranty: Payment arrangements are required before outbound shipment for all out of warranty products.

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Visit us at support.vaddio.com for firmware updates, specifications, drawings, manuals, technical support information, and more.

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